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(COPEPODA : CALANOIDA)

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**ON THE IDENTITY OF BRODSKY'S *EPILABIDOCERA AMPHITRITES*
AND *PONTELLA PULVINATA* WILSON, 1950 WITH *PONTELLA*
LONGIPEDATA SATO, 1913 (COPEPODA : CALANOIDA)¹⁾**

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The calanoid copepod *Epilabidocera amphitrites* of the family Pontellidae was originally described by McMURRICH (1916) as *Paralabidocera amphitrites* n. g., n. sp. from the west coast of Vancouver Island, British Columbia, Canada. However, since the generic name *Paralabidocera* had been preoccupied by WOLFENDEN (1908) for a far different generic group of copepods which is now classified in the family Acartiidae, WILSON (1932, p. 558) proposed a new name *Epilabidocera* as a substitute for McMURRICH's *Paralabidocera*. Now, *Epilabidocera amphitrites* is recorded from the eastern North Pacific and the Arctic Sea, including the west coast of the United States north of San Francisco Bay, the Gulf of Alaska, the eastern Bering Sea, the Chukchi Sea and off Point Barrow, northern Alaska (WILLEY 1920; ESTERLY 1924; CAMPBELL 1929; JOHNSON 1932, 1953, 1956, 1958; DAVIS 1949; BEKLEMISHEV 1961; OMORI 1965; etc.)

It was BRODSKY (1948) that recorded *Epilabidocera amphitrites* for the first time in the western North Pacific from the west coast of Kamchatka and Furugelma Island near Vladivostok in the northwestern Japan Sea. The same author again referred to this pontellid under the same name in his monograph (BRODSKY 1950) on the Copepoda Calanoida of the Far-Eastern seas of the U. S. S. R. and the Polar basin, and mentioned that its distribution in the western North Pacific covered the both coasts of Kamchatka and the east coast of Sakhalin (Karafuto) as well as the northwestern Japan Sea. Since then, *E. amphitrites* has been recorded repeatedly in the western North Pacific by the Russian authors as shown below:

PONOMAREVA (1954)—From the Sōya (La Pérouse) Straits.

BRODSKY (1957)—Possjet Bay south of Vladivostok; southwestern Sakhalin; the northern area of the Mamiya (Tartary) Straits; southern Kuriles; eastern Sakhalin (also, the eastern Bering Sea and the Chukchi Sea).

BRODSKY (1959)—Terpenija (Patience) Bay, Sakhalin, where it occurs in dense populations.

PONOMAREVA (1959)—Southwestern coast of Sakhalin.

PONOMAREVA (1961)—Aniwa Bay, southern Sakhalin; only in surface layers during the season from spring to summer.

1) Contributions from the Seto Marine Biological Laboratory, No. 503.

Meanwhile, WILSON (1950) described a new pontellid under the name *Pontella pulvinata* on the specimens collected by the U. S. Fisheries steamer "Albatross" off Robben Island in the southern Okhotsk Sea. But, no further records have been made on this species by any subsequent researchers.

While checking up the copepods occurring in the Japan Sea and its neighboring waters, I had a suspicion of the distinctiveness of those two pontellid species mentioned above. Careful scrutiny and mutual comparison of the descriptions and figures of BRODSKY's (1948, 1950) *Epilabidocera amphitrites* and WILSON's (1950) *Pontella pulvinata* have revealed that these two species are almost perfectly identical with each other, and further that their morphology agrees almost exactly with the description and figures of *Pontella longipedata* of SATO (1913), a species described as new to science from the surrounding waters of Hokkaido, northern Japan. So far as I am aware, no one has ever compared these three species taxonomically; but to my opinion, there is no doubt about the identity of those three species. Then, the former two names must be treated as junior synonyms of the last.

However, questions remain still about the generic assignment of this species. Really the present species has many characters that fit the diagnosis of *Pontella* DANA, 1846, but it shows at the same time not a few characters that differ markedly from the features of the typical members of *Pontella*; for instance, the asymmetrical last thoracic and first abdominal (genital) segments in male, the lack of rostral lenses and the characteristic form of the fifth feet in both sexes. In these characters, *longipedata* somewhat resembles the members of *Pontellopsis* BRADY, 1883, from which it is very distinctive, however, in the possession of lateral hooks on the head as well as the dorsal lenses and of a larger number of segments in the first antenna (24 versus 16 in female). The present species resembles, on the other hand, fairly closely certain members of *Labidocera* LUBBOCK, 1853 in many important characters including the structure of eyes and lenses, the form of the last thoracic and abdominal segments and the fifth feet, although in the current taxonomy the former is distinctly separated from the latter by the possession of one more segment in the endopodite of the first feet (3 versus 2) and one less segment in the distal part (Endabschnitt) of male grasping antenna (3 versus 4), etc. For these reasons, it seems most reasonable at present to retain the genus *Epilabidocera* WILSON, 1932 and to place the present species in it, though admitting its close affinity to *Labidocera*. Then, the present species should be put on as follows:

Epilabidocera longipedata (SATO, 1913)

- Synonymy: *Pontella longipedata* SATO 1913, pp. 41-43, pl. 7, figs. 110-112, pl. 8, figs. 113-117.
Pontella longipedata, MARUKAWA 1927, p. 1223, fig. 2355.
Pontella longipedata, MORI 1937, p. 96, pl. 45, figs. 1-4.
Pontella longipedata, MARUKAWA 1947, p. 910, fig. 2604.
Epilabidocera amphitrites, BRODSKY 1948, pp. 68-70, pl. 22, figs. 1-4.
Epilabidocera amphitrites, BRODSKY 1950, pp. 413-414, fig. 293.

Pontella pulvinata WILSON 1950, pp. 295–297, pl. 16, figs. 198–204, pl. 19, fig. 245, pl. 35, fig. 532.

Pontella longipedata, MARUKAWA & TANAKA 1965, p. 476, fig. 497.

Pontella longipedata, YAMAZI 1966, p. 231, pl. 105, fig. 6.

It is as yet undetermined whether the present species is distinct from or identical with *Epilabidocera amphitrites* (McMURRICH) distributed in the eastern North Pacific and the Arctic Sea. Some difference is found in the proportional length of rami of the female fifth feet between the two species, but it is questionable if such a difference is really acceptable as a stable feature of specific significance. It is very possible that *longipedata* and *amphitrites* are really identical with each other as treated so by BRODSKY (1948, 1950), and this presents another case of the amphi-Pacific (or Japan-Oregon) or the boreo-Pacific-Arctic distribution of some neritic copepods such as *Corycaeus affinis* McMURRICH, 1916 (= *C. japonicus* MORI, 1937) and *Centropages abdominalis* SATO, 1913 (= *C. mcmurricchi* WILLEY, 1920). If this is true, *Epilabidocera longipedata* (SATO, 1913) has priority over *E. amphitrites* (McMURRICH, 1916) and both *longipedata* and *amphitrites* populations are to be treated as allopatric ones of a single species distributed widely in the boreal North Pacific and the Arctic Sea.

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